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CHAL-0557
Copy 2 of 3

3 February 1959

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MEMORANDUM FOR: [REDACTED]

SUBJECT : J-75 Engine for the U-2

1. Kelly Johnson called me last evening with information that the conversion of one U-2 aircraft and installation therein of a J-75 engine, plus four months' flight tests, would come to an estimated \$481,000. In addition, there might be a charge of about \$27,000 for any spares, modified ground support equipment, and the like. He also stated that the cost of the conversion of all thirteen of our aircraft, and production flight-testing, would be 2.5 million dollars.
2. In explanation of these figures he said that it would be definitely necessary to re-build the entire duct, but that otherwise little structural change would be required.
3. He was most interesting in his present estimates of performance. He believed that with this engine it would be possible to establish a mission profile with an altitude of 70,000 feet at start of climb and 72,000 feet at high cone. The worry, however, is some loss in range, which could exceed 300 miles. On the other hand, it might turn out that carrying the slipper tanks would slightly raise the Mach limit and would therefore be necessary, so that the modified configuration would have a range of about 3,900 nautical miles with the significantly-improved altitude performance.
4. Kelly still knows relatively little about the J-75 engine, when modified, or its availability. He is obtaining additional information from [REDACTED]. I authorized him to start immediately, on a crash basis, the necessary engineering for this conversion. I also stipulated, however, (with his full agreement) that we would communicate again no later than 9 February at which time he would be able to give us somewhat more authoritative estimates of performance. At that time we would confirm our desire to proceed with the conversion of one aircraft or cancel the conversion, depending upon his report.

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RICHARD M. BISSELL, Jr.
Deputy Director
(Plans)

cc: Dep Dir DPD-DD/P ✓